The Relationship between Nursing Faculty's Psychological Distress with Burnout: Post-Pandemic Faculty Shortage

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Abstract: A nursing faculty shortage across the US, with vacancy rates at 8.8%, is limiting student capacity during a time when future nurses are needed most. Contributing factors, including growing levels of mental health issues, can be seen among nursing faculty, leading to more and more nurses leaving nursing academia. This study aimed to identify associations between psychological distress with burnout in nursing faculty teaching in an undergraduate nursing program. A quantitative design was utilized using a descriptive method with a convenience sample of nursing faculty (n =150) from the southeastern U.S. The Keesler Psychological Distress Scale was correlated with the Oldenburg Burnout Inventory. Regression analysis was used to analyze the data. Psychological distress was reported in 25% of the sample. Burnout was reported in 94% of the sample. Psychological distress and burnout were significantly correlated ($p > 0.05$). Race, gender, and age ($p > 0.05$) contributed to psychological distress. Psychological distress and burnout are key factors contributing to the current nursing faculty shortage. Interventions promoting a healthy mental-wellbeing among nursing faculty are needed. Implementation of mentorship, resources, the inclusion of diversity within nursing academia, and mental health awareness can improve mental health outcomes among nursing faculty. Further research is needed to explore the improvement of mental well-being among nursing faculty.

Keywords: Nursing, Nursing Education, Psychological Distress, Burnout, Nursing Faculty

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Introduction

The COVID-19 pandemic will continue to have long-term effects on healthcare and the nursing discipline. As communities try to find a way back to a sense of normalcy post-pandemic, nursing and nursing education seem to be one of the areas that are continually needing to adapt. The pandemic highlighted the importance and need for nurses and nursing educators, but the pandemic also brought about an increasing shortage among key professionals at such a critical time. Nursing schools everywhere around the United States are restricting and limiting student capacity due to faculty shortages (AACN, 2022). A key factor in the nursing faculty shortage can be attributed to psychological distress and burnout. Nursing faculty are more prone to burnout and

psychological distress due to their roles in the response to the COVID-19 pandemic, which added significant stress and emotional exhaustion to their workloads (Sacco & Kelly, 2021).

Psychological Distress and Burnout

Burnout and psychological distress as well as other contributing stressors are important to consider in nursing education and are causes for concern regarding the increase in nursing faculty shortages across the country. According to AACN's report on 2019-2020 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing, "U.S. nursing schools turned away 80,407 qualified applications from baccalaureate and graduate nursing programs in 2019 due to an insufficient number of faculty, clinical sites, classroom space, clinical preceptors, and budget constraints" (para. 2).

Most nursing schools reported that faculty shortages were a top reason for not accepting all qualified applications into their program. Predictors of intent to leave nursing education have included a lack of teaching support. There is limited research that investigates and describes nursing faculty experiences and challenges in their response to the COVID-19 pandemic and what issues arise post-pandemic (Sacco & Kelly, 2021). Burnout and psychological distress have been extensively researched in clinical practice but have received little attention in nursing education and among nursing faculty (Sacco & Kelly, 2021). The following research questions were developed to explore possible associations:

1. What is the relationship between the demographics of BSN undergraduate nursing faculty with psychological distress?

2. What is the relationship between nursing faculty's psychological distress with burnout?

Method

Study Design

The researcher utilized a descriptive method within the quantitative study to investigate the relationship between psychological distress and burnout among nursing faculty. The researcher utilized guidelines from the STrengthening the Reporting of OBservational Studies in Epidemi-ology (STROBE) to report the study. This study was reviewed and approved by The University of Southern Mississippi Institutional Review Board IRB-22-1469.

Setting

Participants were selected from nursing programs in the U.S. The nursing programs were located in Southeastern U.S. As defined by the U.S. federal government, the Southeastern United States includes Alabama,

Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Maryland, Texas, Virginia, and West Virginia (Britannica, 2023).

Participants

The study included a convenience sample of BSN nursing faculty (n=150). In order to meet the criteria to participate in the study, individuals had to be 18 years of age or older and employed at a BSN program within a Southeastern state as full-time nursing faculty. Inclusion criteria excluded nursing faculty teaching in Licensed Practical Nurses (LPN), RN-BSN students, and Associate Degree in Nursing (ADN) programs. The researcher utilized the Student Nurses Association (SNA) and the Southern Association of Colleges and Schools (SACS) to obtain listservs in recruitment efforts. Other methods of recruitment included the utilization of social media platforms such as Facebook and Instagram where advertisements for participation in the study were posted.

Variables

The K6, the Oldenburg, and questions regarding demographics were utilized via an online survey in data collection within the quantitative study. The demographics survey required participants to self-report answers, while the K6 and the Oldenburg required participants to answer Likert-type scale questions. The online survey was input into the Qualtrics platform, which is an online software to collect and categorize data, and resulted in 150 complete response sets. The online survey was available and open to participants for 4 weeks in December 2022. Participants were also offered the option to withdraw from the study at any point should they choose. The survey offered an option to include a participant's contact information if they wanted to inquire about their results within the K6 and the Oldenburg. The K6 and Oldenburg results determine the severity of psychological distress and burnout among individuals. Those participants interested in their results were informed of their scores via email and information regarding what their scores indicated. All of the participants that received their results were also given resources regarding mental well-being. Information provided by the National Alliance on Mental Illness (NAMI) and the National Suicide Prevention Lifeline were included in the resources. The informational email also prompted faculty to reach out to their university's employee assistance programs as needed.

Measurement

The researcher conducted a review of the literature to explore appropriate measurement tools that gauge psychological distress and burnout among individuals. Numerous research studies in the review of literature utilized the Keesler Psychological Distress Scale (K6) and the Oldenburg scale (OLBI). The researcher determined that the K6 and the OLBI were appropriate instruments to include in the quantitative study to measure perceptions of psychological distress and burnout among nursing faculty.

Kessler Psychological Distress Scale (K6)

Numerous research studies have utilized the K6 to measure psychological distress. The K6 was used in this study to measure psychological distress among nursing faculty. Ronald C. Kessler developed the Kessler Psychological Distress Scale to inquire about six manifestations of nonspecific psychological distress over a 30-day recall period (Kessler et al., 2002). The six manifestations are addressed using Likert-type scale questions. Participants' responses include a score of 1 to 5. The response scores are summed at the completion of the survey and will range from scores of 10 to 50. Score ranges will indicate the severity of psychological experienced. Participants that score less than 20 are considered to be well. Participants with scores ranging from 20-24 are likely to have mild mental health disorder. Participants with scores ranging from 25-30 are likely to have moderate mental health disorder. Participants with scores greater than 30 are likely to have severe mental health disorder. Any score over 20 indicates that the participant has some degree or severity of psychological distress (Al-Tammemi et al., 2020). The K6 in this study was found to be highly reliable with an appropriate Cronbach's alpha (6 items; α= .72).

Oldenburg Burnout Inventory (OLBI)

The OLBI has been extensively used in research to measure burnout and was utilized in this study to measure burnout among nursing faculty. The OLBI was developed by Demerouti and Nachreiner (1998) and helps to evaluate the severity of job and academic burnout based on exhaustion and disengagement statements (Nedea, 2020). The survey includes 16 Likert-type scale questions and the responses are associated with numbers 1 to 4. The 16 Items are divided into two subscales that further break down burnout into disengagement burnout and exhaustion burnout. At the completion of the survey, the numbers are summed, and the total score will range from 16 to 64. Higher scores indicate that a participant has a greater level of burnout. Scores can be categorized as low burnout, medium burnout, and high burnout. The OLBI in this study was found to be highly reliable with an appropriate Cronbach's alpha (6 items; α= .82).

Statistical Methods

Data from the 150 response sets were imported from the Qualtrics platform to SPSS version 27, an analyzing software, for analysis. The analysis included descriptive statistical analysis, univariate analyses, bivariate analyses, and multivariate regression analysis.

Results

The nursing faculty (n =150) were in early adulthood with a mean age of 29.82 years (SD=9.42). The highest percentage of participants selected African American (n=103, 69%), male (n=87, 59%), and married (n=82, 55%). Descriptive statistical analysis was conducted on the K6 and the resulting scores determined that 25% of the participants were likely to have a mild to severe mental disorder. Descriptive statistical analysis was conducted on the OLBI and the resulting scores determined that 94% experienced more burnout.

1. What is the relationship between the demographics of BSN undergraduate nursing faculty with psychological distress?

The study sample (n=150) includes, 58% (n=87) males and 42% (n=62) females, aged 25 to 69 years, and stratified for race – 69% (n=103) African American, 30% (n=45) White, and 1% (n= 2) Asian. The marital status reported by the participants includes 55.03% (82) married, 6.04% (9) widowed, 5.37% (8) divorced, 7.38% (11) separated, and 26.17% (39) single. Descriptive statistics can be found in Table 1.

Table 1. – Descriptive Statistics (n = 150)

Variable	Level	Frequency (%)	Mean (SD)
Race			
	Black	103 (68.67)	
	Non-Black	47 (31.33)	
Gender [Q5]			
	Male	87 (58.39)	
	Female	62 (41.61)	
Marital Status [Q7]			
	Married	82 (55.03)	
	Others	67 (44.97)	
Age			29.81 (9.42)
Burnout [OLBITOTAL]			39.76 (3.95)
Psychological Distress [K6TOTAL]			17.25 (3.84)
Burnout in categories			
	Less Burnout	9 (6.00)	
	More Burnout	141 (94.00)	
Psychological Distress in categories			
	Well	112 (74.67)	
	Mental Disorder	38 (25.33)	

Note: For the variables Race, Marital Status, and Psychological distress, the categories with fewer data points have been merged for analysis purpose.

Bivariate analysis was performed for the psychological distress score variable on an ordinal scale with the sociodemographic and disease variables. A statistically significant relationship at α=0.05 was observed with variables – Race, Gender, and Age. Bivariate analysis can be found in Table 2.

Table 2. – Bivariate Analysis

Outcome Variable	Independent Variable	Test	Test Statistic	p-value
Psychological Distress [K6TOTAL]	Race	Spearman	-0.21	**0.0121**
	Gender	Spearman	-0.31	**0.0002**
	Marital Status	Spearman	0.05	0.5652
	Age	Spearman	0.31	**<0.0001**
	Burnout [OLBITOTAL]	Mantel Haenszel	10.05	**0.0015**

Note: Mantel Haenszel Chi-square test was performed because both variables are ordinal scale variables

A multivariate regression analysis was conducted between psychological distress and the demographic variables. The multivariate regression model of the total score of Psychological Distress is statistically significant at α=0.05 with Gender and Race suggesting that there is a linear relationship between the outcome variable and these independent variables. Multivariate regression analysis can be found in Table 3.

Table 3. – Multivariate Linear Regression Model with Psychological Distress and Independent variables

Outcome Variable	Independent variable	β	Standard Error	p
Psychological Distress [K6TOTAL]	Gender	-2.45	0.58	**<0.0001**
	Race	-1.45	0.63	**0.0230**
	Burnout	0.23	0.07	**0.0018**
Sample Size (n) = 150 R^2 = 0.1860				

2. What is the relationship between nursing faculty's psychological distress with burnout?

The total psychological distress score was calculated using 6 items and was observed to range from 6 to 25 with an average of 17.25. A total of 74.67% (n=112) participants reported being well, 24% (n=36) reported a mild mental disorder, and 1.33% (n=2) reported a moderate mental disorder. None of the participants reported severe mental disorder.

The total burnout score was calculated using 16 items and was observed to range from 26 to 55 with an average of 39.76. Higher scores greater than 35 indicate more burnout levels. A total of 94% (n=141) of participants reported more burnout, while only 6% (9) reported less burnout.

Bivariate analysis was performed between psychological distress and the OLBI scale. From table 2, we can see a significant relationship at α=0.05 between psychological distress and the OLBI scale. Multivariate regression analysis was performed between psychological distress and the OLBI scale. The multivariate regression model of the total score of Psychological Distress is statistically significant at α=0.05 with Burnout suggesting that there does exist a linear relationship.

Discussion

Bivariate analyses indicated a significant relationship at α=0.05 between psychological distress and race. With the majority of the study population being African American (69%), we can contribute the study findings to the notion that African American nursing faculty have a higher risk for psychological distress. Research suggests that the adult African American community is 20% more likely to experience serious mental health problems, such as major depressive disorder or generalized anxiety disorder (Vance, 2019). Lawrence et al., (2022) highlighted a study that examined racial and ethnic differences in psychological distress and burnout among faculty and found a higher prevalence of burnout among African Americans (30%) compared to Caucasians

(18%) and Asians (3%).

Bivariate analysis and multivariate regression analysis indicated a statistically significant relationship between psychological distress and gender. With the majority of the study population being male (58%), we can contribute the study findings to the notion that male nursing faculty have a higher risk for psychological distress. Research has highlighted barriers to male nursing faculty as stereotypes, discrimination, higher attrition rates, feminized curriculums, and tokenism (Palmer, 2019). These barriers can increase psychological distress among male nursing faculty. The American Organization for Nursing Leadership (2021) report that male academic faculty report feeling isolated, desire more male role models in nursing academic administration, and need mentors to assist with navigating the unfamiliar environment and culture of academia.

Bivariate analysis and multivariate regression analysis indicated a statistically significant relationship between psychological distress with age. With the majority of the population in the study being in the young adult age range and an average age of 29, we can contribute the study findings to the notion that the young and new nursing faculty are at higher risk for psychological distress. Thomas et al., (2019) highlighted that younger faculty experienced psychological distress and burnout at a higher rate than veteran faculty. The younger and new nursing faculty face many challenges in their professional role that require mentorship, preparation, and adequate support. New faculty stressors can lead to psychological distress and burnout and include demanding course loads, multiple commitments, and a necessity for continuing education in efforts to practice the current research (Shirey, 2006).

Bivariate analysis and multivariate regression analysis indicated a statistically significant relationship between psychological distress with burnout. The linear relationship indicates a positive correlation between psychological distress and burnout, implying that those individuals that experience psychological distress also experience burnout. Bentjen (2019) conducted a study utilizing the Emotional Exhaustion Subscale Score to measure burnout among nursing faculty. The study found high levels of burnout among mid-career nurse educators as a result of the nursing faculty shortage which include factors such as increased workplace responsibilities and challenges with work-life balance. These contributing factors of burnout can negatively affect the mental well-being of nursing faculty and can lead to psychological distress.

Limitations

The Inclusion of a population with only BSN faculty practicing in the Southeastern U.S. can contribute to the limitations of the study. The inclusion of a specific population can cause an external validity threat by limiting the ability to generalize the findings to the larger population of BSN faculty. Another limitation of the study included a sample of mostly male faculty (59%), which may not represent other BSN programs that include more female faculty. Limitations were also noted in the truthfulness and accuracy of participants' responses. The potential for dishonest respondents also added to the limitations of the study. Future research might include a qualitative approach to understanding faculty's perceptions of the experiences with psychological distress and

burnout.

Conclusion

Creating a supportive and positive working environment to promote healthy mental well-being among nursing faculty is vital in addressing the nursing faculty shortage issue (Aquino et al., 2018). Burnout and psychological distress are contributing factors among nursing faculty that can negatively affect the work environment and add to the reasons why faculty are leaving nursing academia. Nursing faculty that are new to academia and are in the young adult age range can be at higher risk for burnout and psychological distress. The average age of nursing faculty in the study was 29, which can be attributed to the theory that nursing faculty are aging out of the profession with increases in nursing faculty retirements. A wave of faculty retirements is expected across the U.S. over the next decade (AACN, 2022).

According to the AACN's report 2021-2022 Salaries of Instructional and Administrative Nursing Faculty, the average age of nursing faculty was 56.6 years. A wave of faculty retirements is expected across the U.S. over the next decade (AACN, 2022). According to the AACN's report 2021-2022 Salaries of Instructional and Administrative Nursing Faculty, the average age of nursing faculty was 56.6 years. Providing effective mentorship and resources to the new wave of nursing faculty can help improve their mental well-being and work environment which can enhance the work experience, leading to intent to stay within nursing academia.

The study revealed that male and African American nursing faculty are at higher risk for psychological distress and burnout. The inclusion of diversity within nursing academia can improve the work environment. A lack of minority nurse educators or male nurse educators may gesture to potential nursing faculty and nursing students that diversity is not valued (AACN, 2022). Potential nursing faculty seeking academic role models to guide them in their academic careers can find it challenging to find mentors and a community of support. Lack of support and lack of mentoring can leave nursing faculty at a higher risk for psychological distress and burnout. The need to attract nursing faculty from underrepresented groups in nursing, especially men and individuals from diverse backgrounds is a high priority for the nursing profession (AACN, 2022).

Addressing the nursing faculty shortage is imperative to nursing education and the nursing profession. Despite fortitudes to combat the faculty shortage in the U.S., contributing factors such as increased levels of burnout, the pace of nurse retirements, and an imbalance in the supply of nursing faculty to nursing students continue to hamper those efforts (Bakewell-Sachs et al., 2022). Interventions and measures such as providing nursing faculty with a healthy work environment can address issues leading to the faculty shortage. The study revealed that stressors such as lack of mentorship, lack of diversity, and lack of mental well-being resources can lead to burnout and psychological distress among nursing faculty. These stressors can be effectively addressed with a collective effort within nursing academia. Preventative measures for burnout among nursing faculty may be the key to gaining the upper hand in the battle against the nursing faculty shortage.

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